FOODS AND BEVERAGES
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malted bread

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PROVISIONAL SPECIFICATION.

Improvements in the Preparation of Leaven for use in the Manufacture of Bread, Pastry, and Biscuits.

I, EUGÈNE LECONTE, of Estaires, Nord, in the Republic of France, Manufacturer, do hereby declare the nature of this invention to be as follows :—

The invention has for its object an improvement in the preparation of leaven, whereby I am enabled to dispense with the use of yeast and potatoes as ferment, and at the same time obtain an effective leaven which is perfectly sweet.

For this purpose I prepare a leaven by taking a suitable quantity of dough from the last batch prepared and intimately mixing therewith a certain proportion of extract of malt prepared from germinated barley or other cereal and containing or not its usual contingent of diastase, extract of malt being the best agent to maintain in the leaven a good, active, and sound fermentation, which will keep it perfectly sweet for the next day's use and thereby assure the production of good, sweet bread, pastry or biscuits. In lieu however of using extract of malt as above described, other saccharine extracts may be employed, such for instance as sugar, glucose, &c., but the employment of these latter materials will not produce so good a result as when using extract of malt as above described.

Dated this 29th day of June 1891.

EUGÈNE LECONTE,

By Harris & Mills,
23, Southampton Buildings, London, W.C., Agents.

COMPLETE SPECIFICATION.

Improvements in the Preparation of Leaven for use in the Manufacture of Bread, Pastry, and Biscuits.

I, EUGENE LECONTE, of Estaires, Nord, in the Republic of France, Manufacturer, do hereby declare the nature of this invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

The invention has for its object an improvement in the preparation of leaven whereby I am enabled to dispense with the use of yeast and potatoes as ferment and at the same time obtain an effective leaven which is perfectly sweet, that is to say, which is neither bitter nor sour.

For this purpose I prepare a leaven by taking a suitable quantity of dough from the last batch prepared (when this dough is ready to be put into the oven) and intimately mixing therewith a certain proportion of extract of malt prepared from germinated barley or other cereal and containing or not its usual contingent of diastase.

This leaven being prepared over night, I revive it the next day, two or three hours before the first baking, by an addition of water and of extract of malt and of flour well mixed and worked, thus increasing it to a third of the quantity of dough to be worked. When this is done I prepare my first baking.

From this first batch I take about a third of the dough, which I leave to ferment during half an hour, three quarters of an hour, one hour, or more, according to the temperature and the seasons; this third portion of the dough, when fermented, serves as leaven for my second batch; I work upon this, as upon

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the first, by taking therefrom the leaven for the third batch, and so on, always taking great care to intimately mix with this leaven the proper quantity of water, in which has been previously dissolved the necessary proportions of extract of malt and of salt.

The work for the day being done, I take from the last batch a small quantity of leaven, which I revive the next day in the manner above described.

The quantity of extract of malt necessary to operate upon a sack of 100 kilogrammes of flour may vary according to the climate, the temperature, the seasons, &c., the quality of flour employed, but may be approximately estimated at 500 grammes.

Extract of malt being the best agent to maintain in the leaven a good, active, and sound fermentation, will keep it perfectly sweet for the next day's use and thereby assure the production of good sweet bread, pastry, or biscuits. In lieu however of using extract of malt as above described, other saccharine extracts may be employed, such, for instance, as sugar, glucose, molasses, &c., but the employment of these latter materials will not produce so good a result as when using extract of malt as above described.

The use of leaven and prepared dough with extract of malt renders possible the manufacture of bread in a continuous and mechanical manner.

Supposing, for example, a kneading trough capable of working a sack and a half of flour and an oven charge of the quantity of one sack. The ordinary work being done and the dough well worked ready for the oven, I take the necessary dough to fill the oven, say a sack, (or the two thirds of the contents of the kneading trough), I put aside the other half sack which will serve as leaven for the following batch, and I allow it to work during about half an hour, three quarters of an hour, one hour, or more, according to the temperature and the season. When sufficiently worked I mix it in the kneading trough with water, in which the necessary quantity of salt and extract of malt have been dissolved, I add thereto a new sack of flour, I knead, &c., &c., I then again take from it dough containing a half sack which will serve me as leaven for the next batch, and so on in a continuous manner.

In working mechanically the maximum amount of work is obtained by putting aside a third part of two batches, forming thus two leavens, one of which is used in a batch whilst the other is getting ready for the next batch.

The extract of malt in this manufacture fulfils this double end: 1st, to considerably aid a good and active fermentation throughout the mass; 2nd, to prevent the dough from becoming bitter or sour, the ferment finding in the extract of malt (which under the action is transformed into alcohol and carbonic acid) the nourishment necessary to support the good and sound fermentation above referred to, which will retain in the dough its sweet and agreeable flavour. The soluble gluten contained in the extract of malt also supplies a very energetic ferment.

Besides, bread made by this process becomes stale less quickly and can be consumed as new bread the next day or even two days after having been made.

It is universally acknowledged by those in the trade that working with leaven produces a bread of quality superior to that made by means of yeast and which will keep fresh and sound longer.

The net cost is also not so high because yeast is entirely dispensed with.

Moreover my process, by enabling leavens to be used which are always new, fresh, and active, assures a much larger yield of bread, which more than covers the small expense of maltine.

I would here remark that I do not confine myself to the proportions herein described of maltine to be used, nor do I confine myself to the proportion of dough to be taken from a working to be used as leaven for the next batch. Further I do not confine myself to the precise method of carrying my process into effect, nor do I confine myself to the use of the extract of malt, as other saccharine extracts may be employed in lieu thereof, although not so advantageously.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is :—

The improvements in the preparation of leaven by the use, in combination with a suitable quantity of dough from the last batch prepared, of extract of malt or other saccharine extracts as herein described, whereby I am enabled to dispense entirely with the use of yeast and to manufacture bread in a continuous manner and by mechanical means, and at the same time to obtain a product in bread, pastry, or biscuits, which is perfectly sweet and free from unpleasant taste.

Dated this 26th day of March 1892.

EUGENE LECONTE,
By Harris & Mills,
23, Southampton Buildings, London, W.C., Agents.

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